

Recent and Fossil Animal Species (from the date of Linnæus), to which he has devoted and still devotes very much of his valuable time, under the auspices of the Director of the Natural-History Branch of the British Museum, and of the Keepers of the Zoological and Geological Departments, is not only worthy of all praise, but deserves Governmental aid; for an enormous mass of material has already been carefully prepared by him, and is available to the several Officers of the Museum, saving them much time and trouble and ensuring accuracy in their Natural-History researches.

In the Smithsonian Index before us some of the genera take up large spaces; thus—

*Platellina*,  $3\frac{1}{2}$  pages.

*Biloculina*, 5 pages.

*Frambicularia*,  $9\frac{3}{4}$  pages.

*Marginulina*,  $12\frac{1}{2}$  pages.

*Dentalina*,  $16\frac{1}{2}$  pages.

*Nodosaria*, 23 pages.

*Cristallaria*,  $25\frac{1}{2}$  pages.

As about from 40 to 45 published names occur in a page, an approximation to their number may be arrived at. The Index does not omit the older terms, such as “*Nautilus*” (occupying 8 pages), “*Cornu Ammonis*,” “*Frumentarium*,” &c., by which some of the most common of the fossil Foraminifera of Italy and others from the Mediterranean and Adriatic were known to early naturalists.

The Author gives very many useful, though short, remarks in brackets [ ], as to the history, modifications, or synonymy of the names, or the nature and source of the specimens referred to. Cross-references are numerous, and greatly enhance the value of the Index. In fact the book can be used readily and with profit throughout for the genera and species of Foraminifera published down to 1889.

It is rich not only with material, but with the conscientious exactitude of a naturalist experienced in bibliography, well acquainted with Foraminifera, and also with those who work on them and willingly give him all the aid they can in carrying out the arduous task he has thus far so successfully completed.

The scientific world gratefully accepts this noble result of the Smithsonian generosity, in having this closely but clearly printed book, which is welcome to a very large class of naturalists in all the Continents, produced and distributed freely and without stint, as is the usual liberal custom of that great Institute at Washington.

### *Horns and Hoofs, or Chapters on Horned Animals.*

By R. LYDEKKER. London: H. Cox.

A YEAR or two ago Mr. Lydekker contributed a number of articles on Hoofed Big Game to the ‘Field’ and ‘Land and Water.’ These chapters were headed:—“Wild Oxen,” “Wild Sheep and Goats,” “The Antelopes of Asia,” “African Antelopes,” “The Deer of Asia,” “The Deer of South America,” “Wild Pigs,” and “Rhino-

ceroses, Ancient and Modern." Reading them at the time, they seemed exactly suited to the tastes of that class of sportsmen who take an intelligent, though perhaps secondary, interest in natural history. The descriptions were not too technical, and there were few hard names, while the geographical distribution of the various families, genera, and species was sketched in a manner well calculated to stimulate further research and enterprise among visitors to wild countries, especially to the elevated districts of Central Asia, as well as some portions of the Indian region. For instance, the remark that no Englishman has ever shot—or, it is believed, so much as seen—a Takin (*Budorcas taxicolor*) alive, although this antelope dwells within sight of British Assam, would be likely to stir up some keen sportsman to circumvent, if possible, the political restrictions which are the cause of this reproach; and, for the matter of that, it is about time that we imitated the Russians in prosecuting our "purely scientific" explorations a little more boldly. The more reflective—we had almost said ruminative—sportsman will find material for thought in the statement that "although all living wild oxen have horns in both sexes, yet certain fossil species are known in which these were absent in at least the females; and it has been suggested that it is due to this circumstance that 'polled' races of oxen are so readily produced, this being, in fact, a reversion to a condition in which both sexes of the ruminants were normally hornless." Perhaps he may think there is a good deal in this, and argue that, because the tail-less variety known as the "Manx" cat is so readily produced, therefore the ancestor of the domestic puss was deficient in a caudal appendage—an analogy which *may* be false! But, enough of the sportsman: let us turn to the naturalist, of whose notice Mr. Lydekker hopes that the work may not prove unworthy. Undoubtedly there are many things, in this collection of odds and ends, of which the average "naturalist" can bear to be reminded. It cannot be too often dinned into him that the "aurochs" is the extinct wild ox, and is *not* the European bison; or that the musk-ox is not merely "found," but is plentiful, in some parts of Greenland (a fact unknown to the author of the article in the "Big Game volumes" of the Badminton series, and, it would seem, to most of the reviewers of that work). Not every naturalist realizes that the great preponderance of antelopes in Africa is merely a feature of the present epoch, and that there is strong evidence that this group previously inhabited Southern Europe and Asia, whence it was partially driven by climatal and other changes. Nor does every one know that the "Roman-nosed" Saiga antelope, of the Kirghiz steppes, was found in Eastern Poland a century ago, and that not only are the remains of representatives of the genus found in Moravia and in the south of France, but also in Belgium, while in 1890 the frontlet and horn-cores of a male were actually obtained in the Pleistocene deposits of the Thames Valley. Many similar points might be cited, and, so far, we have nothing except praise for Mr. Lydekker; but for the naturalist it was not sufficient to string together a lot of articles, and to recast some of them, with the

addition of some fresh illustrations: and we very much regret that the Author has not bestowed upon the present work that small amount of extra labour which would have rendered it complete in itself. As it stands, we have the Old-World Antelopes, but nothing about the Giraffes; the American Prong-horned Antelope is not mentioned (at least, it is not in the index), nor is the Rocky Mountain Goat (*Haplocerus montanus*); and the red-deer group is discussed, with barely an allusion to the Wapiti. This would have been intelligible if an arbitrary line had been drawn at Old-World species; but such is not the case, for there is a special chapter devoted to the deer of South America. The Elk and the Reindeer are treated under the head of "Asiatic Deer," but nothing is said about their American representatives beyond the incidental remarks that the former is not specifically distinct from the moose, nor the latter from the caribou. These and some other omissions diminish the value of a very readable and instructive work.

## PROCEEDINGS OF LEARNED SOCIETIES.

### GEOLOGICAL SOCIETY.

February 21, 1894.—Dr. Henry Woodward, F.R.S.,  
President, in the Chair.

The following communication was read:—

"Note on the Genus *Naiadites*, as occurring in the Coal Formation of Nova Scotia." By Sir J. William Dawson, K.C.M.G., LL.D., F.R.S., F.G.S. With an Appendix by Dr. Wheelton Hind, B.S., F.R.C.S., F.G.S.

The specimens referred to in the paper occur most abundantly in calcareo-bituminous shales along the coast, at the South Joggins, and were described by the Author in 'Acadian Geology,' in 1860. A collection of them has been submitted to Dr. Wheelton Hind. In Q. J. G. S. vol. xix. Mr. Salter referred the shells described as *Naiadites* to his new genera *Anthracoptera* and *Anthracomya*. In correspondence with Mr. Salter, the Author held that the shells were probably freshwater, and objected to the name *Anthracomya* as expressing an incorrect view of the affinity of the shells; he also stated several reasons in support of his opinions. The Author continued to use the name *Naiadites*, but does not object to the division of the species into two genera, for one of which Salter's name *Anthracoptera* should be retained. Additional reasons are given for the freshwater origin of these shells, and the Author expresses his gratification that their affinities have been so ably illustrated by Dr. Hind.

Dr. Wheelton Hind believes that the 'genus' *Naiadites* contains three distinct genera, for one of which the name must be retained.